

STATE OF MISSOURI  
**DEPARTMENT OF NATURAL RESOURCES**

MISSOURI CLEAN WATER COMMISSION



**MISSOURI STATE OPERATING PERMIT**

**UNDERGROUND INJECTION CONTROL**

Permit No. UI-0000012

Owner: Lafarge North America Inc.  
Address: 2609 N. 145<sup>th</sup> East Ave., Tulsa, OK, 74116

Continuing Authority: Same as above  
Address: Same as above

Facility Name: Lafarge, Sugar Creek Plant  
Facility Address: 4301 N. River Blvd., Sugar Creek, MO 64050

Legal Description: Sec. 13, 14, 22, 23, T50N, R32W, Jackson County

Receiving Stream: Subsurface Waters (U)  
First Classified Stream and ID: Missouri River (P) 0356  
USGS Basin & Sub-watershed No.: 10300101-050003

**FACILITY DESCRIPTION**

Outfall #001 - Underground Injection – SIC # 7389

Gourndwater monitoring wells for ash injection system in old underground limestone mine.  
See attached map (Page 4 of 5)

MW – 1, MW – 2, MW – 3 – Discontinued  
MW – 4 and 5 – Active

September 9, 2005      December 30, 2005  
Effective Date      Revised Date

September 8, 2010  
Expiration Date

Doyle Childers, Director, Department of Natural Resources  
Executive Secretary, Clean Water Commission

Edward Galbraith, Director of Staff, Clean Water Commission

<b>A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS</b>					PAGE NUMBER 2 of 9	
					PERMIT NUMBER UI-0000012	
The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective upon issuance and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:						
OUTFALL NUMBER AND EFFLUENT PARAMETER(S)	UNITS				MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
<u>Monitoring Wells</u>						
Flow	MGD	*		*	Once/year	grab
Sulfate	mg/L	*		*	Once/year	grab
Chloride	mg/L	*		*	Once/year	grab
Chemical Oxygen Demand	mg/L	*		*	Once/year	grab
PH - Units	SU	**		**	Once/year	grab
Ammonia	mg/L	*		*	Once/year	grab
Oil & Grease	mg/L	15		10	Once/year	grab
Aluminum, Total Recoverable	mg/L	*		*	Once/year	grab
Barium, Total Recoverable	mg/L	*		*	Once/year	grab
Boron, Total Recoverable	mg/L	*		*	Once/year	grab
Cobalt, Total Recoverable	mg/L	*		*	Once/year	grab
Iron, Total Recoverable	mg/L	*		*	Once/year	grab
Magnesium, Total Recoverable	mg/L	*		*	Once/year	grab
Molybdenum, Total Recoverable	mg/L	*		*	Once/year	grab
Maganese, Total Recoverable	mg/L	*		*	Once/year	grab
Tin, Total Recoverable	mg/L	*		*	Once/year	grab
Titanium	mg/L	*		*	Once/year	grab
MONITORING REPORTS SHALL BE SUBMITTED <u>ANNUALLY</u> ; THE FIRST REPORT IS DUE <u>October 28, 2006</u> . THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.						
<b>B. STANDARD CONDITIONS</b>						
IN ADDITION TO SPECIFIED CONDITIONS STATED HEREIN, THIS PERMIT IS SUBJECT TO THE ATTACHED <u>Part I</u> STANDARD CONDITIONS DATED <u>October 1, 1980</u> , AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN.						

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS					PAGE NUMBER 3 of 9	
PERMIT NUMBER UI-0000012						
The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective upon issuance and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:						
OUTFALL NUMBER AND EFFLUENT PARAMETER(S)	UNITS				MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
<u>Monitoring Wells (continued)</u>						
Antimony, Total Recoverable	MGD	*		*	Once/year	grab
Arsenic, Total Recoverable	mg/L	*		*	Once/year	grab
Beryllium, Total Recoverable	mg/L	*		*	Once/year	grab
Cadmium, Total Recoverable	mg/L	*		*	Once/year	grab
Chromium, Total Recoverable	SU	**		**	Once/year	grab
Copper, Total Recoverable	mg/L	*		*	Once/year	grab
Lead, Total Recoverable	mg/L	*		*	Once/year	grab
Aluminum, Total Recoverable	mg/L	*		*	Once/year	grab
Mercury, Total Recoverable	mg/L	*		*	Once/year	grab
Nickel, Total Recoverable	mg/L	*		*	Once/year	grab
Selenium, Total Recoverable	mg/L	*		*	Once/year	grab
Silver, Total Recoverable	mg/L	*		*	Once/year	grab
Thallium, Total Recoverable	mg/L	*		*	Once/year	grab
Zinc, Total Recoverable	mg/L	*		*	Once/year	grab
Nitrate as N	mg/L	10.0		10.0	Once/year	grab
MONITROING REPORTS SHALL BE SUBMITTED <u>ANNUALLY</u> ; THE FIRST REPORT IS DUE <u>October 28, 2006</u> . THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.						
B. STANDARD CONDITIONS						
IN ADDITION TO SPECIFIED CONDITIONS STATED HEREIN, THIS PERMIT IS SUBJECT TO THE ATTACHED <u>Part I</u> STANDARD CONDITIONS DATED <u>October 1, 1980</u> , AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN.						

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

\* Monitoring requirement only.

\*\* pH is measured in pH units and is not to be averaged. The pH is to be maintained at or above 6.0 pH units.

### C. SPECIAL CONDITIONS

1. This permit may be reopened and modified, or alternatively revoked and reissued, to:
  - (a) Comply with any applicable effluent standard or limitation issued or approved under Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a) (2) of the Clean Water Act, if the effluent standard or limitation so issued or approved:
    - (1) contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
    - (2) controls any pollutant not limited in the permit.
  - (b) Incorporate new or modified effluent limitations or other conditions, if the result of a waste load allocation study, toxicity test or other information indicates changes are necessary to assure compliance with Missouri's Water Quality Standards.
  - (c) Incorporate new or modified effluent limitations or other conditions if, as the result of a watershed analysis, a Total Maximum Daily Load (TMDL) limitation is developed for the receiving waters which are currently included in Missouri's list of waters of the state not fully achieving the state's water quality standards, also called the 303(d) list.

The permit as modified or reissued under this paragraph shall also contain any other requirements of the Clean Water Act then applicable.

#### 2. Changes in Discharges of Toxic Substances

The permittee shall notify the Director as soon as it knows or has reason to believe:

- (a) That any activity has occurred or will occur which would result in the discharge of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels:"
  - (1) One hundred micrograms per liter (100 µg/L);
  - (2) Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/L) for 2,5 dinitrophenol and for 2-methyl-4, 6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
  - (3) Five (5) times the maximum concentration value reported for the pollutant in the permit application;
  - (4) The level established in Part A of the permit by the Director.
- (b) That they have begun or expect to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant, which was not reported in the permit application.
- (c) That the effluent limit established in part A of the permit will be exceeded. eriod.

#### 3. Water Quality Standards

- (a) Discharges to waters of the state shall not cause a violation of water quality standards rule under 10 CSR 20-7.031, including both specific and general criteria.
- (b) General Criteria. The following general water quality criteria shall be applicable to all waters of the state at all times including mixing zones. No water contaminant, by itself or in combination with other substances, shall prevent the waters of the state from meeting the following conditions:

Water Quality Standards (continued)

- (1) Waters shall be free from substances in sufficient amounts to cause the formation of putrescent, unsightly or harmful bottom deposits or prevent full maintenance of beneficial uses;
- (2) Waters shall be free from oil, scum and floating debris in sufficient amounts to be unsightly or prevent full maintenance of beneficial uses;
- (3) Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor or prevent full maintenance of beneficial uses;
- (4) Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal or aquatic life;
- (5) There shall be no significant human health hazard from incidental contact with the water;
- (6) There shall be no acute toxicity to livestock or wildlife watering;
- (7) Waters shall be free from physical, chemical or hydrologic changes that would impair the natural biological community;
- (8) Waters shall be free from used tires, car bodies, appliances, demolition debris, used vehicles or equipment and solid waste as defined in Missouri's Solid Waste Law, section 260.200, RSMo, except as the use of such materials is specifically permitted pursuant to section 260.200-260.247.

## STANDARD CONDITIONS FOR UNDERGROUND INJECTION CONTROL PERMIT

### GENERAL CONDITIONS

#### Section A – Monitoring And Reporting

##### 1. Representative Sampling

- a. Samples and measurements taken as required herein shall be representative of the nature and volume. Monitoring results shall be recorded and reported, postmarked no later than the 28<sup>th</sup> day of the month following the completed reporting period. Signed copies of these, and all other reports required herein, shall be submitted to the appropriate regional office and the Division of Geology and Land Survey, P.O. Box 250, Rolla, Missouri 65401.

##### 2. Definitions

Definitions as set forth in the Missouri Clean Water Law and Missouri Clean Water Commission Definition Regulation 10 CSR 20-2.010 shall apply to terms used herein.

##### 3. Test Procedures

Test procedures for the analysis of pollutants shall be in accordance with the Missouri Clean Water Commission Effluent Regulation 10 CSR 20-7.015.

##### 4. Recording of Results

- a. For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information:
  - i. The date, exact place, and time of sampling or measurements;
  - ii. The individual(s) who performed the sampling or measurements;
  - iii. The date(s) analyses were performed;
  - iv. The individual(s) who performed the analyses;
  - v. The analytical techniques or methods used; and
  - vi. The results of such analyses.
- b. The Federal Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than 6 months per violation, or both.
- c. Calculations of all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified by the Director in the permit.

##### 5. Additional Monitoring by Permittee

If the permittee monitors any pollutant at the location(s) designated herein more frequently than required by this permit, using approved analytical methods as specified above, the results of such monitoring shall be included in the calculation and reporting of the values required in the Monitoring Report Form. Such increased frequency shall also be indicated.

Section A – Monitoring And Reporting (continued)

6. Records Retention

The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report or application. This period may be extended by request of the Department at any time.

Section B – Management Requirements

1. Noncompliance Notification

- a. If, for any reason, the permittee does not comply with or will be unable to comply with any daily maximum limitation specified in this permit, the permittee shall provide the Department with the following information, in writing within five (5) days of becoming aware of such condition:
  - i. A description of the violation and cause of noncompliance, and
  - ii. The period of noncompliance, including exact dates and times or, if not corrected, that anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate and prevent recurrence of the noncompliance.
- b. Twenty-four hour reporting. The permittee shall report any noncompliance, which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. The Department may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.

2. Facilities Operation

Permittees shall operate and maintain facilities to comply with the Missouri Clean Water Law and applicable permit conditions.

3. Adverse Impact

The permittee shall take all necessary steps to minimize any adverse impact to waters of the state resulting from noncompliance with any limitations specified in this permit or set forth in the Missouri Clean Water Law and Regulations (hereinafter the Law and Regulations), including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.

4. Removed Substances

Solids, sludge, filter backwash, or other pollutants removed in the course of treatment or control of waters shall be disposed of in a manner such as to prevent any pollutants from entering waters of the state unless permitted by the Law, and a permanent record of the date and time, volume and methods of removal and disposal of such substances shall be maintained by the permittee.

Section B – Management Requirements (continued)

5. Right of Entry

For the purpose of inspecting, monitoring, or sampling the injection wells, point source, water contaminant source, or wastewater treatment facility for compliance with the Clean Water Law and these regulations, authorized representatives of the Department shall be allowed by the permittee, upon presentation of credentials and at reasonable times:

- a. to enter upon permittee's premises in which an injection well, point source, water contaminant source, or wastewater treatment facility is located or in which any records are required to be kept under terms and conditions of the permit;
- b. to have access to, or copy any records required to be kept under terms and conditions of the permit;
- c. to inspect any monitoring equipment or method required in the permit;
- d. to inspect any collection, treatment, or discharge facility covered under the permit; and
- e. to sample any wastewater at any point in the collection system or treatment process.

6. Permits Transferable

- a. Subject to section (3) of 10 CSR 20-6.010 an operating permit may be transferred upon submission to the Department of an application to transfer signed by a new owner. Until such time as the permit is officially transferred, the original permittee remains responsible for complying with the terms and conditions of the existing permit.
- b. The Department, within thirty (30) days of receipt of the application shall notify the new permittee of its intent to revoke and reissue or transfer the permit.

7. Availability of Reports

Except for data determined to be confidential under the Missouri Clean Water Commission Regulation for Public Participation, Hearings and Notice to Governmental Agencies 10 CSR 20-6.020, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Department. As required by statute, operating data shall be subject to the imposition of criminal penalties as provided for in Section 644.076 of the Law.

8. Permit Modifications

- a. Subject to compliance with statutory requirements of the Law and Regulations and applicable Court Order, this permit may be modified, suspended, or revoked in whole or in part during its term for cause including, but not limited to, the following:
  - i. violation of any terms or conditions of this permit or the Law;
  - ii. having obtained this permit by misrepresentation or failure to disclose fully all relevant facts;
  - iii. a change in any circumstances or conditions that requires either a temporary or permanent reduction or elimination of the authorized discharge, or
  - iv. any reason set forth in the Law and Regulations.

9. Civil and Criminal Liability

Except as authorized by statute nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance.



Section B – Management Requirements (continued)

10. State Laws

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable state statute or regulations.

11. Property Rights

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of or violation of federal, state or local laws or regulations.

12. Duty to Reapply

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for a new permit 180 days prior to expiration of this permit.

13. Signatory Requirement

All reports or information submitted to the Director shall be signed.

14. Rights Not Affected

Nothing in this permit shall affect the permittee's right to appeal or seek a variance from applicable laws or regulations as allowed by law.

15. Severability

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.